

533,667

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
3 June 2004 (03.06.2004)

PCT

(10) International Publication Number
WO 2004/046612 A1

(51) International Patent Classification⁷: **F23C 10/24**

(21) International Application Number:
PCT/JP2003/014500

(22) International Filing Date:
14 November 2003 (14.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2002-332696 15 November 2002 (15.11.2002) JP
2003-132201 9 May 2003 (09.05.2003) JP

(71) Applicant (for all designated States except US): **EBARA CORPORATION [JP/JP]**; 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo 144-8510 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ISHIKAWA, Ryuichi [JP/JP]**; c/o Ebara Corporation, 11-1, Haneda

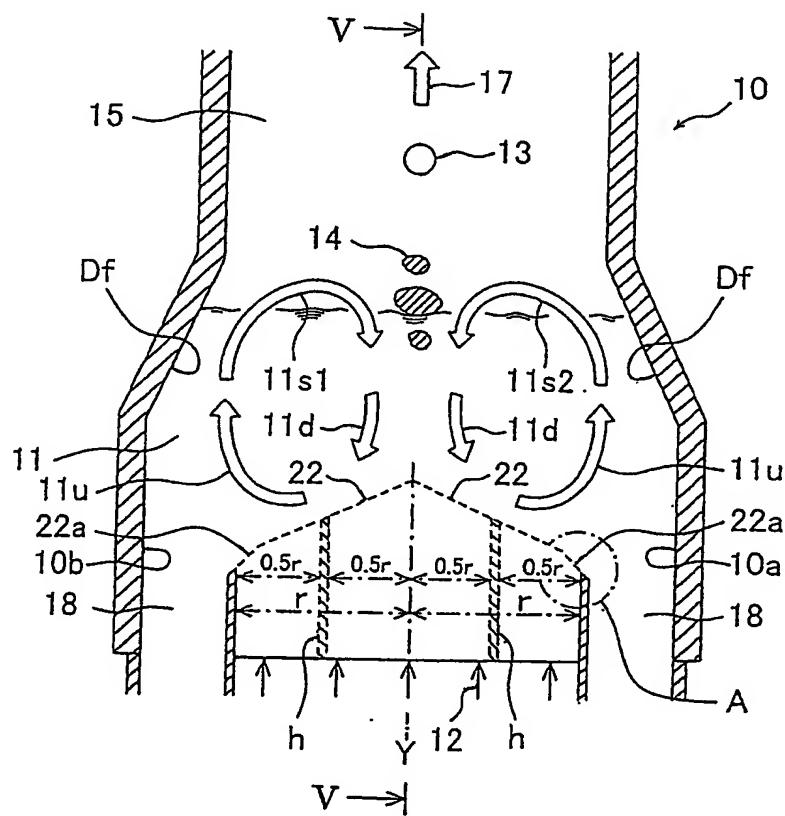
Asahi-cho, Ohta-ku, Tokyo 144-8510 (JP). **GOKE, Chikao [JP/JP]**; c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo 144-8510 (JP). **KOSUGI, Shigeru [JP/JP]**; c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo 144-8510 (JP). **CHO, Hiromitsu [JP/JP]**; c/o Ebara Corporation, 11-1, Haneda Asahi-cho, Ohta-ku, Tokyo 144-8510 (JP).

(74) Agents: **WATANABE, Isamu et al.; GOWA Nishi-Shinjuku 4F, 5-8, Nishi-Shinjuku 7-chome, Shinjuku-ku, Tokyo 160-0023 (JP)**.

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Continued on next page]

(54) Title: FLUIDIZED-BED GASIFICATION FURNACE



(57) Abstract: The present invention relates to a fluidized-bed gasification furnace in a gasification and slagging combustion system for gasifying combustibles, delivering produced gas and char into a slagging combustion furnace, and combusting the gas and char at a high temperature and melting ash in the slagging combustion furnace. The fluidized-bed gasification furnace includes a fluidized bed (11) having a substantially rectangular horizontal cross section in which combustibles is gasified in a circulating flow of the fluidized medium, and at least one incombustibles discharging portion (18) defined at at least one side of the fluidized bed for discharging the fluidized medium and incombustibles accompanying the fluidized medium.

WO 2004/046612 A1



(84) **Designated States (regional):** ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.